



TENNESSEE DEPARTMENT OF

EDUCATION

DIVISION OF CAREER AND TECHNICAL EDUCATION

Architecture & Construction

Standards Revision (Phase II): Frequently Asked Questions

Question	Answer
I see a lot of changes in the courses within the Architecture & Construction career cluster. What do these changes represent?	<p>Drawing on educator feedback and labor market research, the CTE Division combined relevant standards from skilled construction trade areas (including carpentry, masonry, concrete, electrical, plumbing, and HVAC) into a single, integrated program of study (POS) called Residential & Commercial Construction. Rather than focusing on a single trade in isolation, this new POS provides students with a comprehensive understanding of the phases of building construction, including the business and project management sides of the industry.</p> <p>In addition, two new pathways have been added to the construction offerings for 2015-16: (1) Structural Systems, and (2) Mechanical, Electrical, & Plumbing Systems. Structural Systems focuses on building framing and related coverings and finishes. Mechanical, Electrical, & Plumbing Systems focuses on building equipment.</p> <p>Computer-aided drafting (CAD) courses were also revised into a program of study entitled Architectural & Engineering Design, which places greater emphasis on the design process used by professionals in architecture and engineering fields.</p>
Will the standards dictate how a teacher is to teach a specific standard?	<p>The standards are written to provide teachers with better direction as to the content and expectations of what the student should know and be able to do. This will allow the teacher to use the best method of instruction to enhance the student's learning experience.</p>

Will a student need to complete all four levels of the program of study to meet the elective focus required for graduation?	No. Students will only need to complete three courses within a program of study or career cluster to complete their elective focuses and become CTE concentrators. Specific elective focus areas are selected by local boards of education. We do, however, encourage students to complete all four courses to ensure they are best prepared for postsecondary and career opportunities.
Is there room in a high school student's schedule to complete a four-course program of study?	Most LEAs' master schedules provide opportunities for students to receive elective credits in addition to the minimum credits required for graduation by State Board of Education policy. Most programs of study include at least one course required for graduation as part of the logical sequence, allowing a student to fulfill graduation requirements while progressing through a program of study. We strongly encourage students, parents, and administrators to select a student's elective focus during his/her freshman year.
How will these standards help prepare my students to function in society and in the workforce?	Data gathered from business and industry illustrate that the skills and knowledge required for success in the workforce are identical to those required for success in postsecondary. Industry trends show the majority of current and future occupations will require some form of postsecondary training. It is our responsibility to prepare all students with the skills they need to be successful. These standards also ensure that students develop skills to be productive members of society by becoming more informed individuals.
What if I am concerned that my students are not able to do this level of work yet?	Standards are structured to develop conceptual understandings of both technical and literacy skills in a logical progression. All students can meet postsecondary and career readiness expectations embedded in these standards with the correct supports.
There are a lot of references to general education standards in the new standards. Are we expected to teach general education content in addition to our CTE content?	These standards reflect general education standards where they have direct application to CTE content. Teachers are not expected to teach general education standards; rather, they should be able to show the application of these concepts in a contextual way through the instruction of their CTE content.

Will instruction in SkillsUSA be included in the courses?	Yes. SkillsUSA is an integral part of our courses in the Architecture & Construction career cluster. All CTE courses include alignment to their respective CTSOs. Over the coming weeks, the Division will release materials aligning specific SkillsUSA competitive events and TSA competitive events (where applicable) with the course standards. These materials will give teachers additional tools to help students meet the rigorous standards of the revised courses and CTSO competitive events.
Does TSA align with my program of study?	Some TSA competitive events align with the Architectural & Engineering Design program of study.
The credit recommendations for some level 3 courses are listed as 1-2 credits. What does this mean?	The level 3 courses (Residential & Commercial Construction II, Structural Systems II, and Architectural & Engineering Design II) were designed to be flexible for varying school schedules. The following options are possible: <ul style="list-style-type: none"> • When all course standards are covered, the level 3 courses should be offered for two credits. • The course description documents for level 3 courses provide two options of course standards for one credit. If offered for one credit, a student may repeat the level 3 course (for a total of two credits) when alternating course standards are covered each time.
I do not see welding courses in the Architecture & Construction career cluster, were these courses retired?	No. The Division moved the Welding program of study to the Advanced Manufacturing career cluster because data gathered from business and industry indicate that 64% of welders and related occupations work within manufacturing, while the remainder largely spread among the construction, trade, and transportation industries (<i>Bureau of Labor Statistics, Occupational Employment Statistics, 2014</i>). Welding will continue to be an elective in the Architecture and Construction cluster, and will also be available for elective credit in the Transportation, Distribution & Logistics career cluster for schools with the capacity to provide welding instruction within an automotive repair environment.
I do not see masonry or concrete courses in the Architecture & Construction career cluster, were these courses retired?	While stand-alone courses in masonry and concrete have been retired, all content in these courses has been folded into the more comprehensive Residential & Commercial Construction program.

Do the changes to the programs of study impact teachers being able to teach the courses?	The impact on teacher endorsements is minimal. The majority of current teachers will be eligible to teach in at least one of the programs of study. For those requiring additional endorsements, options will be provided and a grace period will be granted for the requirements to be met.
What endorsements are required to teach Residential & Commercial Construction I & II?	Teachers must hold the 580 Construction Maintenance Trades endorsement, or at least three of the following endorsements: 522, 523, 524, 527, 598.
What endorsements are required to teach Structural Systems I & II?	Carpentry (522) or Construction Maintenance Trades (580) is required.
What endorsements are required to teach courses in the Mechanical, Electrical, & Plumbing Systems program of study?	<p>For MEP Systems, teachers must hold one of the following: 501, 502, 523, 527, 532, 567, 580, 592, 598.</p> <p>For Electrical Systems, teachers must hold one of the following: 501, 502, 523, 532, 567, 580, 592.</p> <p>For HVAC, teachers must hold one of the following: 501, 502, 523, 532, 567, 592, 598.</p> <p>For Plumbing Systems, teachers must hold one of the following: 501, 502, 527, 567, 580, 592.</p>